

## ABSTRACT

A coefficient sequence of a spreading sequence is sequentially shifted one pitch at a time, transmission data  
5 is multiplied by a plurality of coefficient sequences to produce a plurality of transmission data, and the plurality of produced transmission data are added up to produce a transmission data sequence. Alternatively, the coefficient sequence of the spreading sequence is multiplied  
10 by the transmission data, the result is sequentially shifted one pitch at a time, and a plurality of transmission data are added up to produce a transmission data sequence. Transmission data is multiplied by the coefficient sequence of a spreading sequence to produce a finite-length signal  
15 and this finite-length signal is repeated an infinite number of times to produce an infinite-length signal. Transmission data, which is longer than the coefficient sequence, is cut out from this infinite-length signal to produce a transmission data sequence. This makes it possible to  
20 include transmission data into a spreading sequence and, therefore, when the transmission data is modulated through spread spectrum, an increase in the amplitude of a signal is reduced and the dynamic range of an amplifier on the receiving side is reduced.